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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,676	03/30/2001	Cai-Zhong Jiang	MBI - 0034	6125

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EXAMINER	
COLLINS, CYNTHIA E	
ART UNIT	PAPER NUMBER

1638  
DATE MAILED: 06/06/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/823,676	JIANG, CAI-ZHONG
	Examiner Cynthia Collins	Art Unit 1638

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 30 March 2001.

2a) This action is FINAL.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) \_\_\_\_\_ is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) 1-18 are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)                            4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)                            5)  Notice of Informal Patent Application (PTO-152)

3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                            6)  Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-6 and 17, drawn to a transgenic plant, an isolated or recombinant polynucleotide, a cloning or expression vector, a cell comprising a cloning or expression vector, and a plant, classified in class 536, subclass 23.1, for example. For Invention I, restriction to a single nucleic acid sequence and the amino acid sequence it encodes is also required under 35 USC 121. Therefore, if Invention I is elected, a single nucleic acid sequence and the amino acid sequence it encodes must also be elected.
- II. Claims 7-8, drawn to an isolated or recombinant polypeptide, classified in class 530, subclass 350, for example. For Invention II, restriction to a single amino acid sequence is also required under 35 USC 121. Therefore, if Invention II is elected, a single amino acid sequence must also be elected.
- III. Claim 9, drawn to a method for producing a plant having modified biomass comprising altering the expression of a recombinant polynucleotide, classified in class 800, subclass 290, for example. For Invention III, restriction to a single nucleic acid sequence and the amino acid sequence it encodes is also required under 35 USC 121. Therefore, if Invention III is elected, a single nucleic acid sequence and the amino acid sequence it encodes must also be elected.
- IV. Claims 10-11, drawn to a method of identifying a factor that is modulated or interacts with a polypeptide by detecting binding to a promoter sequence, classified in class 536, subclass 24.1, for example. For Invention IV, restriction to

a single nucleic acid sequence and the amino acid sequence it encodes is also required under 35 USC 121. Therefore, if Invention IV is elected, a single nucleic acid sequence and the amino acid sequence it encodes must also be elected.

- V. Claims 10-11, drawn to a method of identifying a factor that is modulated or interacts with a polypeptide by detecting interactions between an additional protein and the polypeptide in a yeast two hybrid system, classified in class 435, subclass 6, for example. For Invention V, restriction to a single nucleic acid sequence and the amino acid sequence it encodes is also required under 35 USC 121. Therefore, if Invention V is elected, a single nucleic acid sequence and the amino acid sequence it encodes must also be elected.
- VI. Claim 12, drawn to a method of identifying a factor that is modulated or interacts with a polypeptide by hybridization, classified in class 435, subclass 2, for example. For Invention VI, restriction to a single nucleic acid sequence and the amino acid sequence it encodes is also required under 35 USC 121. Therefore, if Invention VI is elected, a single nucleic acid sequence and the amino acid sequence it encodes must also be elected.
- VII. Claim 13, drawn to a method of identifying a molecule that modulates activity or expression of a polynucleotide or polypeptide, classified in class 435, subclass 7.1, for example. For Invention VII, restriction to a single nucleic acid sequence and the amino acid sequence it encodes is also required under 35 USC 121. Therefore, if Invention VII is elected, a single nucleic acid sequence and the amino acid sequence it encodes must also be elected.

VIII. Claims 14-16, drawn to a method of identifying a sequence similar or homologous to one or more polynucleotides or polypeptides, classified in class 702, subclass 19, for example. For Invention VIII, restriction to a single nucleic acid sequence and the amino acid sequence it encodes is also required under 35 USC 121. Therefore, if Invention VIII is elected, a single nucleic acid sequence and the amino acid sequence it encodes must also be elected.

IX. Claim 18, drawn to a plant comprising altered expression levels or activity of a recombinant polypeptide, classified in class 800, subclass 298, for example. For Invention IX, restriction to a single amino acid sequence is also required under 35 USC 121. Therefore, if Invention IX is elected, a single amino acid sequence must also be elected.

The inventions are distinct, each from the other because of the following reasons:

The polynucleotide sequences of Inventions I and III-VIII are unrelated to each other. The polypeptide sequences of Inventions I-IX are also unrelated to each other. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions represent structurally different polynucleotides or polypeptides. Therefore, where structural identity is required, such as for hybridization or expression, the different sequences have different effects.

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different

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inventions have different modes of operation, different functions, and different effects. The transgenic plant, polynucleotide, vector and cell of Invention I and the polypeptide of Invention II are structurally and functionally distinct from each other, and can be used in different methods, such as a method of breeding for the plant, a hybridization method for the polynucleotide, a transformation method for the vector, a regeneration method for the cell, and an immunoassay method for the polypeptide.

Inventions I and IX are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, such as by the application of a recombinant polypeptide to a plant, or by the use of other molecules to induce or inhibit the expression or activity of the recombinant polypeptide.

Inventions I and IX and IV-VII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process of using that product, such as a method of breeding or a method of producing a recombinant polypeptide.

Inventions IV-VIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different

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inventions different modes of operation. The method of Invention IV requires the detection of binding by the polypeptide to a promoter sequence, which is not required by the methods of Invention V-VIII. The method of Invention V requires the detection of interactions between an additional protein and the polypeptide in a yeast two hybrid system, which is not required by the methods of Inventions IV and VI-VIII. The method of Invention VI requires the detection of the expression of a factor by hybridization, which is not required by the methods of Inventions IV-V and VII-VIII. The method of Invention VII requires monitoring of the expression level or activity of a polynucleotide or a polypeptide in a plant, which is not required by the methods of Inventions IV-VI and VIII. The method of Invention VIII requires the use of a database query, which is not required by the methods of Inventions IV-VII.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, their recognized divergent subject matter, and the requirement for different areas of search, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

***Remarks***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (703) 605-1210. The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (703) 306-3218. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

CC  
June 5, 2002

  
PHUONG T. BUI  
PRIMARY EXAMINER